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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/630,248

07/30/2003

Xueying Huang

CL1943USNA

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23906

7590

06/07/2007

E I DU PONT DE NEMOURS AND COMPANY  
LEGAL PATENT RECORDS CENTER  
BARLEY MILL PLAZA 25/1128  
4417 LANCASTER PIKE  
WILMINGTON, DE 19805

EXAMINER

LIN, JAMES

ART UNIT

PAPER NUMBER

1762

MAIL DATE

DELIVERY MODE

06/07/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/630,248 | <b>Applicant(s)</b><br>HUANG ET AL. |  |
|                              | <b>Examiner</b><br>Jimmy Lin         | <b>Art Unit</b><br>1762             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 1,3,4,18 and 20-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,5-17 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/12/2007 has been entered.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2, 5-17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Templeton et al. (*Langmuir* 1999, 15, pg. 66-76) in view of Foos et al. (*Chem. Mater.* 2002, 14, pg. 2401-2408).

The rejection is of record in the Office Action filed 7/3/2006.

### *Response to Arguments*

4. Applicant's arguments filed 4/12/2007 have been fully considered but they are not persuasive.

Claims 2, 5-17, and 19 as rejected over Templeton and Foos:

The Declaration under 37 CFR 1.131 filed 3/12/2007 fails to overcome all the rejections. First, the oath filed 4/30/2004 names two inventors for the present invention, but only one of the inventors, Ming Zheng, has signed the declaration. All inventors of the subject matter of the rejected claims must sign a Declaration under 37 CFR 1.131 (see MPEP 715.04.I.). Second, the declaration does not contain an allegation that the acts relied upon to establish the date prior to the reference were carried out in this country or in a NAFTA country or WTO member country

(see MPEP 715.07(c)). Third, the declaration does not clearly explain the facts or data Applicants are relying on to show completion of the invention prior to the particular date. Vague and general statements in broad terms about what the exhibits describe along with a general assertion that the exhibits describe a reduction to practice “amounts to mere pleading, unsupported by proof or a showing of facts and, thus, does not satisfy 37 CFR 1.131 (see MPEP 715.07.I.). The Examiner notes that Exhibits 1 and 2 submitted with the declaration does not show “the final concentration of water in the reaction mixture is from about 9% to about 18% V/V” as required by independent claim 2. The Applicant argues on pg. 9 of the response filed 12/11/2006 that the control of water content was a key finding that had never been disclosed in the prior art. The declaration must at least show the possession of the basic inventive concept (see MPEP 715.02.I.). Fourth, the claims do not require the specific components used in the experiments shown in Exhibits 1 and 2. In other words, the Declaration does not show reduction to practice of *all* coated metallic nanoparticles formed from the genus of *all* possible metal salts, shielding components, capture coating components, and reducing agents. Assuming *arguendo* that the Declaration provides evidence of reduction to practice, Exhibits 1 and 2 merely show the reduction to practice of the use of specific components. Fifth, the provisional of the present application does not fully support independent claim 2. For example in the embodiment of claim 2 (direct synthesis), the provisional does not have a general teaching of using “(ii) a shielding component having metal binding functionality”, but only teaches the use of an ethylene glycol component having metal binding functionality (claim 2 and pgs. 11-12 of provisional). For at least this reason, the provisional does not fully support the claims and the rejection is based upon a statutory bar. A Declaration under 37 CFR 1.131 cannot overcome a statutory bar.

A 2003 JACS paper is submitted along with the declaration. However, the 2003 JACS paper is insufficient to overcome the rejections, as previously stated in the Office Action filed 2/7/2007.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Lin whose telephone number is 571-272-8902. The examiner can normally be reached on Monday thru Friday 8AM - 5:30PM.

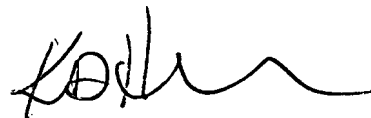
Art Unit: 1762

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JL

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**KEITH HENDRICKS**  
**PRIMARY EXAMINER**